

## REMARKS

Applicants submit these remarks in response to the Office Action dated July 3, 2003. Claims 18, 19, 25 and 35 have been cancelled and claims 17, 23, 24, 27, 28, 34, 37 and 39 have been amended as discussed below. No new matter is added.

Claims 18, 24, 27-29, 32-35, 37 and 39 were objected to because they contain embodiments of non-elected inventions and non-elected species. Applicants submit that the claims as amended are no longer subject to this ground of objection.

Claims 17, 18, 20-22, 25, 27-29, 32-35, 37 and 39 were rejected under 35 U.S.C. § 112, first paragraph, because the specification allegedly is not enabling for the scope of the claims. Without acquiescing to the ground of rejection, applicants have amended the relevant claims and applicants submit that the claims as amended are not subject to this ground of rejection. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 17-25, 27-29, 32-35, 37 and 39 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Reconsideration and withdrawal of the rejection are respectfully requested.

Claim 17 and its dependent claims allegedly are indefinite in view of the phrase “selecting at least one nucleic acid sequence” in step (b) and “to express the selected nucleic acid sequences” in step (c). Step (c) in claim 17 has been amended to recite “nucleic acid sequence or sequences” to correspond to the “at least one” language of step (b).

Claim 23 allegedly is indefinite because, according to the Examiner, there is insufficient antecedent basis for the limitation “the nucleic acid sequence” in line 1 of the claim. Claim 23 recites “the selected nucleic acid sequence” and this finds antecedent basis in step (b) of claim 17, which recites the step of selecting. However, to further clarify this antecedent basis, claim 23 has been amended to recite “of step (b).” Claim 23 also allegedly is indefinite in view of the phrase “wherein the selected nucleic acid sequence further encodes at least one selectable marker.” Applicants submit that claim 23 as amended, and the claims depending from claim 23, are no longer subject to this indefiniteness rejection.

Reconsideration and withdrawal of the rejection under 35 U.S.C. § 112, second paragraph, are respectfully requested.

Claims 17-22, 25, 27-29, 32-35, 37 and 39 were rejected under 35 U.S.C. § 102(e) as being anticipated by Nair *et al.* (U.S. Patent No. 5,853,719). Reconsideration and withdrawal of the rejection are respectfully requested.

According to the Examiner, the Nair patent teaches a method for producing an RNA-loaded antigen presenting cell including a dendritic cell by introducing tumor-derived RNA that includes tumor-specific RNA. The RNA can, according to the Examiner, be prepared using subtractive hybridization against RNA from non-tumor cells. These dendritic cells can be used to induce cytotoxic T lymphocytes; the patent allegedly also teaches a method of treating tumor formation in a patient by administering antigen-presenting cells loaded with tumor-derived RNA, with the administration of IL-2 to enhance CTL proliferation.

The actual examples disclosed by Nair *et al.* do not describe the use of cytokine such as IL-2 or IL-4. Although Nair *et al.* may indicate that cytokine use may be desired (Column 13, lines 2-5) there is no indication that such use was carried out in any of the embodiments described in the Examples. Thus, the potential positive or negative effect of a cytokine is not indicated in Nair *et al.* beyond a mere invitation to experimentation. There is also no indication of a step of “comparing” first and second nucleic acid sequences, as recited in applicants’ claim 17, to determine sequences preferentially expressed by a target cell population. In fact, Nair *et al.* specifically state that practicing the invention “does not require identifying an antigen of the tumor cell or pathogen” (column 2, lines 25-27) so it is not evident that Nair’s disclosure anticipates each element of independent claim 17.

For the foregoing reasons, reconsideration and withdrawal of this rejection are respectfully requested.

Claims 17-22, 25, 27-29, 32-35, 37 and 39 were rejected under 35 U.S.C. § 102(a) as being anticipated by Nair *et al.* (WO 97/41210). Reconsideration and withdrawal of the rejection are respectfully requested.

The teachings of WO 97/41210 are similar to those of the Nair U.S. patent described above.

The WO/97/41210 document claims priority from the same application (08/640,444) as does the 5,853,719 patent, but the PCT application claims CIP status from the ‘444 application. However, applicants do not note any disclosure in the PCT that further supports the rejection based on anticipation under § 102(a).

Reconsideration and withdrawal of this rejection are respectfully requested.

Claims 17-20, 25, 27-29 and 33 were rejected under 35 U.S.C. § 102(a) as being anticipated by Tuting *et al.*, (J. Immunol. 160:1139-1147, 1998). Reconsideration and withdrawal of the rejection are respectfully requested.

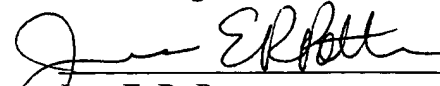
Tuting allegedly teaches a method of preparing autologous human monocyte-derived dendritic cells transfected transiently with plasmid vectors encoding human MART-1/Melan-A, Pmel-17/gp100, tyrosine, MAGE-1 and MAGE-3, and the transfected cells were used to stimulate autologous PBMC responder T cells. The Examiner stated that as Tuting selected human melanoma antigens, comparison of nucleic acid sequences expressed by melanoma cells with nucleic acid sequences expressed by non-melanoma cells has been made.

Before reaching the specific nucleic acid sequence selected by Tuting, applicants note that the choice of cytokine, and the use of a cytokine in the first place, was analyzed by Tuting at pages 480-481. The authors concluded that even "the most potent cytokine gene" tested in studies was only "marginally superior" to using irradiated cells alone, and was in fact inferior to tumor cells plus an adjuvant. (Page 480, right column, lines 31-34.) Thus, Tuting's teachings do not clearly anticipate applicants' use of cytokines, specifically the elected species IL-2, in the claimed methods.

All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

If questions remain regarding this application, the Examiner is invited to contact the undersigned at (206) 628-7650.

Respectfully submitted,  
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